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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/584,717	06/07/2007	Chul-Sik Yoon	1403-13 PCT US	5085

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THE FARRELL LAW FIRM, LLP  
290 Broadhollow Road  
Suite 210E  
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EXAMINER
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DOAN, PHUOC HUU

ART UNIT	PAPER NUMBER
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2617

MAIL DATE	DELIVERY MODE
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06/17/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/584,717	<b>Applicant(s)</b> YOON ET AL.	
	<b>Examiner</b> PHUOC DOAN	<b>Art Unit</b> 2617	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13-21 is/are rejected.
- 7) ☒ Claim(s) 12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-11, 13-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muller (US Patent No. 6,438,375) in view of Lindskog (US Patent No. 6,622,251).

As to claim 1, 13, 18, 19, Muller discloses a system for controlling a power saving mode of a subscriber station in a wireless portable Internet system (see Fig. 6, 7, and Abstract “the idle mobile station can return to the power savings sleep mode to conserve its battery life in network based communication”), comprising: a message receiver for receiving a sleep request (SLP-REQ) message from the subscriber station (col. 9, lines 1-20 “which tunes to the paging channel, receives the message by entering a sleep mode”); a message parser for parsing the sleep request message and extracting an initial sleep window, a final sleep window, and a subscriber station identifier (col. 8, lines 34-65 “messages at a first or second time

interval, paging timeslots associated with the second one of the groups to provide different of sleep window such as initial or final sleep window”); a sleep mode controller for determining an entrance time to the sleep mode by the subscriber station which requests the sleep mode according to the initial sleep window, the final sleep window, and the subscriber station identifier so as to group listening intervals of a plurality of subscriber stations and arrange the same (col. 8, lines 34-65, col. 9 through col. 10, lines 48-40 “including the mobile ID of each mobile being paged in the group and control unit 36, is provided in the next field”); a grouping database for storing information on the sleep modes of the grouped subscriber stations and information on the groups (col. 10, lines 1-40 “radio network controller have provided a group database for string information and control channel with included the network restriction message and associates each group with a timeslot or time interval on the paging channel”); a sleep mode database for storing the initial sleep windows and the final sleep windows of the grouped subscriber stations (col. 8, lines 34-65); and a message transmitter for notifying the sleep-mode-requested subscriber station of the initial sleep windows, the final sleep windows, and the entrance time to the sleep mode (col. 9, lines 1-20). However, Muller does not clearly disclose accessing a frame for processing traffic indication which subscriber station’s

sleep window is expired; and detecting a-wake mode, that the subscriber stations have the data.

But, Lindskog clearly discloses accessing a frame for processing traffic indication which subscriber station's sleep window is expired; and detecting a-wake mode, that the subscriber stations have the data (col. 9 through col. 10, lines 38-24 "provide a frame ID with detecting a-wake mode for mobile terminal and contains a pending data indication").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was modified by Lindskog to the system of Muller in order to control mobile terminal into sleep mode.

As to claim 2, 14, 20, 21, Muller further discloses wherein the sleep mode controller comprises: a grouping controller for controlling grouping of sleep groups managed by the grouping controller according to the sleep request message parsed by the message parser, and checking which group has the least number of subscriber stations in the sleep mode from among the sleep groups (col. 8, lines 34-65, col. 9 through col. 10, lines 48-40 "including the mobile ID of each mobile being paged in the group and control unit 36, is provided in the next field"); a subscriber station arranger for arranging the subscriber station to the group with the least number of

subscriber stations; and a sleep window determiner for determining an initial sleep window and a final sleep window appropriate for system management, and using the initial sleep window and a final sleep window to manage the corresponding subscriber station (col. 8, lines 34-65, col. 9 through col. 10, lines 48-40).

As to claim 3, 10, 11, Lindskog further discloses that further comprising a frame arranger for controlling a start frame so that the grouped and arranged subscriber station may receive a traffic indication and be arranged to a frame (col. 10, lines 43-60).

As to claim 4, 15, Muller further discloses wherein the sleep mode controller parses the sleep request message, arranges the subscriber station entering the sleep mode to the group with the least number of subscriber stations, and groups the same (col. 8, lines 45-65 “a second time interval, paging timeslots associated with the second one of the groups”).

As to claim 5, 16, Muller further discloses wherein the sleep mode controller determines the initial and final sleep windows, uses the same to manage the subscriber station, and uses the same as parameters of a sleep

response message to transmit the parameters to the subscriber station (col. 9, lines 1-35, col. 10, lines 1-25).

As to claim 6, 17, Muller further discloses wherein the sleep mode controller determines the initial and final sleep windows of the subscriber station so that listening intervals for each group may not be superimposed (col. 10, lines 1-25).

As to claim 7, Muller further discloses wherein the sleep mode controller applies notification on the traffic existence in the subscriber stations in the sleep mode to the respective groups so as to minimize the amount of information on signaling messages when indicating the traffic to the subscriber station in the sleep mode (col. 10, lines 1-40).

As to claim 8, Muller further discloses wherein the initial sleep window value is a value when the subscriber station enters the sleep mode, and is integer-times the minimum initial sleep window value controlled by the base station (col. 9, lines 1-20, col. 10, lines 1-40).

As to claim 9, Muller further discloses wherein the final sleep window value is a maximum window in which the subscriber station enters the sleep state once while in the operation of sleep mode, and is integer-times the minimum initial sleep window value (col. 9, lines 1-20, col. 10, lines 1-40).

***Allowable Subject Matter***

2. Claim 12 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUOC DOAN whose telephone number is (571)272-7920. The examiner can normally be reached on 10:00AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LESTER KINCAID can be reached on 571-272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/PHUOC DOAN/  
Examiner, Art Unit 2617